

**Commonwealth of Kentucky**  
**Natural Resources and Environmental Protection Cabinet**  
**Department for Environmental Protection**  
**Division for Air Quality**  
**803 Schenkel Lane**  
**Frankfort, Kentucky 40601**  
**(502) 573-3382**

**AIR QUALITY PERMIT**

**Permittee Name:** R.R. DONNELLEY AND SONS COMPANY  
GLASGOW MANUFACTURING DIVISION  
**Mailing Address:** Donnelley Drive, Glasgow, Kentucky 42141

**Source Name:** Same as above  
**Mailing Address:** Same as above

**Source Location:** Donnelley Drive, Glasgow, Kentucky

**Permit Type:** Federally-Enforceable  
**Review Type:** Title V, Synthetic Minor

**Permit Number:** V-99-034  
**Log Number:** F458  
**Application**  
**Complete Date:** February 12, 1998

**KYEIS ID #:** 105-0160-0029  
**AFS Plant ID #:** 21-009-00029  
**SIC Code:** 2752

**Region:** South Central  
**County:** Barren

**Issuance Date:**  
**Revision Date:**  
**Expiration Date:**

---

**John E. Hornback, Director**  
**Division for Air Quality**

## TABLE OF CONTENTS

<u>SECTION</u>	<u>DATE OF ISSUANCE</u>	<u>PAGE</u>
SECTION A	PERMIT AUTHORIZATION	1
SECTION B	EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS	2
SECTION C	INSIGNIFICANT ACTIVITIES	19
SECTION D	SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS	21
SECTION E	SOURCE CONTROL EQUIPMENT OPERATING REQUIREMENTS	22
SECTION F	MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS	23
SECTION G	GENERAL CONDITIONS	26
SECTION H	ALTERNATE OPERATING SCENARIOS	30
SECTION I	COMPLIANCE SCHEDULE	30

## **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application which was determined to be complete on February 12, 1998, the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in the Regulation 401 KAR 50:035, Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

**01 ( 24 )                      Hot Water Boiler #1**  
**Hot Water Boiler #2**

**Description:**

Manufacture:	Kewanee, 300 HP, each
Rated Capacity:	12.5 MMBTU/HR, each
Fuel:	Natural Gas
Date Commenced:	December 1969

**APPLICABLE REGULATIONS:**

401 KAR 61:015, Existing indirect heat exchangers, applicable to affected facilities with a capacity of 250 million BTU/hr heat input or less and constructed before April 9, 1972.

**1.     Operating Limitations:** None

**2.     Emission Limitations:**

401 KAR 61:015, Existing indirect heat exchangers

- a. Section 4: Particulate matter emissions from each boiler shall not exceed 0.66 lbs/MM BTU actual heat input.
- b. Section 4: Visible emissions from each boiler shall not exceed 40% opacity.
- c. Section 5: Sulfur dioxide emissions from each boiler shall not exceed 5.33 lbs/ MM BTU actual heat input.

**Compliance Demonstration Method:** EPA's AP-42 publication.

Particulate Matter (lbs) = 13.7 x million cubic feet of natural gas input.

Sulfur Dioxide (lbs) = 0.6 x million cubic feet of natural gas input.

**3.     Testing Requirements:** None

**4.     Specific Monitoring Requirements:**

401 KAR 61:015, Existing indirect heat exchangers, section 6(3), the rate of fuel burned shall be measured daily or at shorter intervals and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

5.     **Specific Recordkeeping Requirements:** see monitoring requirements
6.     **Specific Reporting Requirements:** None
7.     **Specific Control Equipment Operating Conditions:** None
8.     **Alternate Operating Scenarios:** None

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- 02 (30)**    Offset heatset lithographic press KMMS-517  
              Two model MC-2000 Air Dryers manufactured by TEC Systems  
              Construction commenced: December 1982

### **Control Equipment:**

1. Thermal Oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
  2. Thermal Oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991
  3. Thermal Oxidizer#3, Manufactured by TEC System, Model 2-218 installed on August, 1994
- Three (3) Thermal oxidizers controlling all 10 presses in a triplex configuration.

**Claimed Efficiency:** 95%

### **APPLICABLE REGULATIONS:** None

1.     **Operating Limitations:** None

2.     **Emission Limitations:** None

**Compliance Demonstration Method:** see group requirements

3.     **Testing Requirements:** see group requirements

4.     **Specific Monitoring Requirements:** see group requirements

5.     **Specific Recordkeeping Requirements:** see group requirements

6.     **Specific Reporting Requirements:** see group requirements

7.     **Specific Control Equipment Operating Conditions:** see group requirements

8.     **Alternate Operating Scenarios:** None

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- 03 (34)**    Offset heatset lithographic press KMMS-504  
              One model P-11-98 Air Dryer manufactured by TEC Systems  
              Construction commenced: May1983

### **Control Equipment:**

1. Thermal Oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
  2. Thermal Oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991
  3. Thermal Oxidizer#3, Manufactured by TEC System, Model 2-218 installed on August, 1994
- Three (3) Thermal oxidizers controlling all 10 presses in a triplex configuration.

**Claimed Efficiency:** 95%

### **APPLICABLE REGULATIONS:** None

1.     **Operating Limitations:** None

2.     **Emission Limitations:**

**Compliance Demonstration Method:** see group requirements

3.     **Testing Requirements:** see group requirements

4.     **Specific Monitoring Requirements:** see group requirements

5.     **Specific Recordkeeping Requirements:** see group requirements

6.     **Specific Reporting Requirements:** see group requirements

7.     **Specific Control Equipment Operating Conditions:** see group requirements

8.     **Alternate Operating Scenarios:** None

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- 04 (35)**    Offset heatset lithographic press KMMS-505  
              One model MC-2000 Air Dryer manufactured by TEC  
              Construction commenced: October 1983

### **Control Equipment:**

1. Thermal Oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
  2. Thermal Oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991
  3. Thermal Oxidizer#3, Manufactured by TEC System, Model 2-218 installed on August, 1994
- Three (3) Thermal oxidizers controlling all 10 presses in a triplex configuration.

**Claimed Efficiency:** 95%

### **APPLICABLE REGULATIONS:** None

1.     **Operating Limitations:** None

2.     **Emission Limitations:** None

**Compliance Demonstration Method:** see group requirements

3.     **Testing Requirements:** see group requirements

4.     **Specific Monitoring Requirements:** see group requirements

5.     **Specific Recordkeeping Requirements:** see group requirements

6.     **Specific Reporting Requirements:** see group requirements

7.     **Specific Control Equipment Operating Conditions:** see group requirements

8.     **Alternate Operating Scenarios:** None



**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- 05 (37)**    Offset heatset lithographic press KMMS-530  
              Two model MC-2000 Air Dryers manufactured by TEC  
              Construction commenced: January 1984

**Control Equipment:**

1. Thermal Oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
  2. Thermal Oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991
  3. Thermal Oxidizer#3, Manufactured by TEC System, Model 2-218 installed on August, 1994
- Three (3) Thermal oxidizers controlling all 10 presses in a triplex configuration.

**Claimed Efficiency:** 95%

**APPLICABLE REGULATIONS:** None

1.     **Operating Limitations:** None

2.     **Emission Limitations:** None

**Compliance Demonstration Method:** see group requirements

3.     **Testing Requirements:** see group requirements

4.     **Specific Monitoring Requirements:** see group requirements

5.     **Specific Recordkeeping Requirements:** see group requirements

6.     **Specific Reporting Requirements:** see group requirements

7.     **Specific Control Equipment Operating Conditions:** see group requirements

8.     **Alternate Operating Scenarios:** None

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- 06 (38)**    Offset heatset lithographic press KMMS-531  
              Two model MC-2000 Air Dryers manufactured by TEC  
              Construction commenced: June 1984

### **Control Equipment:**

1. Thermal Oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
  2. Thermal Oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991
  3. Thermal Oxidizer#3, Manufactured by TEC System, Model 2-218 installed on August, 1994
- Three (3) Thermal oxidizers controlling all 10 presses in a triplex configuration.

**Claimed Efficiency:** 95%

### **APPLICABLE REGULATIONS:** None

1.     **Operating Limitations:** None

2.     **Emission Limitations:** None

**Compliance Demonstration Method:** see group requirements

3.     **Testing Requirements:** see group requirements

4.     **Specific Monitoring Requirements:** see group requirements

5.     **Specific Recordkeeping Requirements:** see group requirements

6.     **Specific Reporting Requirements:** see group requirements

7.     **Specific Control Equipment Operating Conditions:** see group requirements

8.     **Alternate Operating Scenarios:** None

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- 07 (40)** Offset heatset lithographic press KMMS-532  
Two model C-3800 Air Dryers manufactured by TEC Systems  
Construction commenced: October 1988

### **Control Equipment:**

1. Thermal Oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
  2. Thermal Oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991
  3. Thermal Oxidizer#3, Manufactured by TEC System, Model 2-218 installed on August, 1994
- Three (3) Thermal oxidizers controlling all 10 presses in a triplex configuration.

**Claimed Efficiency:** 95%

### **APPLICABLE REGULATIONS:** None

**1. Operating Limitations:**

Usage rate of inks, fountain solutions, and clean up solvents containing VOC's shall be restricted so as not to exceed the emission limitations in Section B(2).

**2. Emission Limitations:**

Synthetic minor limitation to preclude applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality:

Volatile organic compound (VOC) emissions shall be less than 36 tons per rolling 12 month period.

**Compliance Demonstration Method:** see group requirements

**3. Testing Requirements:** see group requirements

**4. Specific Monitoring Requirements:** see group requirements

**5. Specific Recordkeeping Requirements:** see group requirements

**6. Specific Reporting Requirements:** see group requirements

**7. Specific Control Equipment Operating Conditions:** see group requirements

**8. Alternate Operating Scenarios:** None

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- 08 (42)** Offset heatset lithographic press KMMS-533  
Two model CP-411 Air Dryers manufactured by TEC Systems  
Construction commenced: October 1990

**Control Equipment:**

1. Thermal Oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
  2. Thermal Oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991
  3. Thermal Oxidizer#3, Manufactured by TEC System, Model 2-218 installed on August, 1994
- Three (3) Thermal oxidizers controlling all 10 presses in a triplex configuration.

**Claimed Efficiency:** 95%

**APPLICABLE REGULATIONS:** None

**1. Operating Limitations:**

Usage rate of inks, fountain solutions, and clean up solvents containing VOC's shall be restricted so as not to exceed the emission limitations in Section B(2).

**2. Emission Limitations:**

Synthetic minor limitation to preclude applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality:

Volatile organic compound (VOC) emissions shall be less than 36 tons per rolling 12 month period.

**Compliance Demonstration Method:** see group requirements

**3. Testing Requirements:** see group requirements

**4. Specific Monitoring Requirements:** see group requirements

**5. Specific Recordkeeping Requirements:** see group requirements

**6. Specific Reporting Requirements:** see group requirements

**7. Specific Control Equipment Operating Conditions:** see group requirements

**8. Alternate Operating Scenarios:** None

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- 09 (43)** Offset heatset lithographic press KMMS-534  
Two model P-390 Air Dryers manufactured by TEC Systems  
Construction commenced: September 1991

### **Control Equipment:**

1. Thermal Oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
  2. Thermal Oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991
  3. Thermal Oxidizer#3, Manufactured by TEC System, Model 2-218 installed on August, 1994
- Three (3) Thermal oxidizers controlling all 10 presses in a triplex configuration.

**Claimed Efficiency:** 95%

### **APPLICABLE REGULATIONS:** None

**1. Operating Limitations:**

Usage rate of inks, fountain solutions, and clean up solvents containing VOC's shall be restricted so as not to exceed the emission limitations in Section B(2).

**2. Emission Limitations:**

Synthetic minor limitation to preclude applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality:

Volatile organic compound (VOC) emissions shall be less than 36 tons per rolling 12 month period.

**Compliance Demonstration Method:** see group requirements

**3. Testing Requirements:** see group requirements

**4. Specific Monitoring Requirements:** see group requirements

**5. Specific Recordkeeping Requirements:** see group requirements

**6. Specific Reporting Requirements:** see group requirements

**7. Specific Control Equipment Operating Conditions:** see group requirements

**8. Alternate Operating Scenarios:** None

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- 10 (46)** Offset heatset lithographic press KMMS-535  
Two model P-582 Air Dryers manufactured by TEC Systems  
Construction commenced: August 1994

### **Control Equipment:**

1. Thermal Oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
  2. Thermal Oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991
  3. Thermal Oxidizer#3, Manufactured by TEC System, Model 2-218 installed on August, 1994
- Three (3) Thermal oxidizers controlling all 10 presses in a triplex configuration.

**Claimed Efficiency:** 95%

### **APPLICABLE REGULATIONS:** None

**1. Operating Limitations:**

Usage rate of inks, fountain solutions, and clean up solvents containing VOC's shall be restricted so as not to exceed the emission limitations in Section B(2).

**2. Emission Limitations:**

Synthetic minor limitation to preclude applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality: In August, 1994 the company requested an emission reduction credit from the shut down of two presses KMMS-515 (EP # 20) and KMMS-521 (EP # 23).

Volatile organic compound (VOC) emissions shall be less than 53 tons per rolling 12 month period.

**Compliance Demonstration Method:** see group requirements

**3. Testing Requirements:** see group requirements

**4. Specific Monitoring Requirements:** see group requirements

**5. Specific Recordkeeping Requirements:** see group requirements

**6. Specific Reporting Requirements:** see group requirements

**7. Specific Control Equipment Operating Conditions:** see group requirements

**8. Alternate Operating Scenarios:** None

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- 11 (51)** Offset heatset lithographic press KMMS-536  
Two model P2-135-57 Air Dryers manufactured by TEC Systems  
Construction commenced: August 1996

### **Control Equipment:**

1. Thermal Oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
  2. Thermal Oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991
  3. Thermal Oxidizer#3, Manufactured by TEC System, Model 2-218 installed on August, 1994
- Three (3) Thermal oxidizers controlling all 10 presses in a triplex configuration.

**Claimed Efficiency:** 95%

### **APPLICABLE REGULATIONS:** None

**1. Operating Limitations:**

Usage rate of inks, fountain solutions, and clean up solvents containing VOC's shall be restricted so as not to exceed the emission limitations in Section B(2).

**2. Emission Limitations:**

Synthetic minor limitation to preclude applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality: In August, 1996 the company requested an emission reduction credit from the shut down of two presses KMMS-514 (EP # 21) and KMMS-516 (EP # 22).

Volatile organic compound (VOC) emissions shall be less than 53 tons per rolling 12 month period.

**Compliance Demonstration Method:** see group requirements

**3. Testing Requirements:** see group requirements

**4. Specific Monitoring Requirements:** see group requirements

**5. Specific Recordkeeping Requirements:** see group requirements

**6. Specific Reporting Requirements:** see group requirements

**7. Specific Control Equipment Operating Conditions:** see group requirements

**8. Alternate Operating Scenarios:** None

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Group Requirements****List of Points ( 02,03,04,05,06,07,08,09,10,11)****1. Compliance Demonstration Method:**

- a. The following formula or equivalent may be used in calculating emissions of VOC's from ink:

VOC emitted (lbs) =  $\sum \{ \text{gallons of ink} \times \text{VOC content of ink (lbs/gal)} \times 0.8 \times (1 - \text{destruction efficiency of the thermal oxidizers}) \}$

- b. The following formula or equivalent may be used in calculating emissions of VOC's from fountain solution:

VOC emitted (lbs) =  $\sum \{ \text{gallons of fountain solution concentrate} \times \text{VOC content of fountain solution concentrate (lbs/gal)} \times 0.7 \times (1 - \text{destruction efficiency of the thermal oxidizers}) \} + \sum \{ \text{gallons of fountain solution} \times \text{VOC content of fountain solution (lbs/gal)} \times 0.30 \}$

- c. The following formula or equivalent may be used in calculating emissions of VOC's from clean up solvent, Auto Blanket Wash (ABW):

VOC emitted (lbs) =  $\sum \{ \text{gallons of ABW} \times \text{VOC content of ABW (lbs/gal)} \times 0.4 \times (1 - \text{destruction efficiency of the thermal oxidizers}) \} + \sum \{ \text{gallons of ABW} \times \text{VOC content of ABW (lbs/gal)} \times 0.60 \}$

- d. The following formula or equivalent may be used in calculating emissions of VOC's from clean up solvent, Manual Blanket Wash (MBW):

VOC emitted (lbs) =  $\sum \{ \text{gallons of MBW} \times \text{VOC content of MBW (lbs/gal)} \times 0.50 \}$

VOC emissions determined by formulas (a) through (d) or equivalent shall be summed and used to demonstrate compliance with the emission limitations listed for each affected facility.

For the formulas above, the control efficiency of the thermal oxidizers is a minimum of 95% if operated at or above the average temperature established during the most recent performance test.

A control efficiency of 0% shall be used when presses are operated without the emissions directed to the thermal oxidizers or assumed for all 3-hour periods (during actual printing operation) during which the average temperature of the thermal oxidizer is more than 28°C(50°F) below the average temperature of thermal oxidizer during the most recent performance test.



**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****2. Testing Requirements:**

The permittee shall conduct a performance test on the thermal oxidizers to determine the destruction efficiency for volatile organic compounds within six months following the issuance of this permit.

Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the division shall be notified of the actual test date at least ten (10) days prior to the test.

If the permittee has conducted a performance test within the six months preceding issuance of this permit, the results of this testing shall be accepted in lieu of the testing specified above.

**3. Specific Monitoring Requirements:**

The permittee shall install, calibrate, maintain, and operate monitoring devices which indicate the operating temperature of the thermal oxidizers. The monitoring device shall have an accuracy of the greater of  $\pm 0.75$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 2.5$  °C. The monitoring devices shall be connected to a device(s) that records the temperature via a strip chart, electronic media, or other means. Any required recording system shall be installed and operational no later than 180 days from the date of issuance of this permit.

**4. Specific Recordkeeping Requirements:**

The permittee shall maintain records of the following information for each thermal oxidizer:

- a. The design and/or manufacture's specifications.
- b. The operational procedures and preventive maintenance records.
- c. The combustion chamber temperature for each thermal oxidizer in operation.
- d. All 3-hour periods (during actual printing operations ) during which the average temperature of the thermal oxidizer is more than 28 °C (50 °F) below the average temperature of thermal oxidizer during the most recent performance test.
- e. During all periods of operation of the thermal oxidizers during which the 3-hour average temperature of the thermal oxidizer is more than 28°C (50°F) below the average temperature of the thermal oxidizer during the most performance test, operation of the presses without control, or malfunction of the thermal oxidizers, a daily log of the following information shall be kept:
  1. Whether any air emissions were visible from the facilities associated with the thermal oxidizers.
  2. Whether visible emissions were normal for the process.
  3. The cause of the visible emissions.
  4. Any corrective action taken.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****4. Specific Recordkeeping Requirements:(continued)**

The permittee shall keep calendar month records of usage of all inks, fountain solutions, and clean up solvents. At the end of each month, Volatile Organic Compounds (VOC) emissions shall be calculated and recorded. These records shall be summarized and tons per month VOC emissions calculated and recorded (see Group Requirement, Section 1) . Tons VOC per 12 months shall also be recorded. The recorded tons per 12 months shall be a 12 month rolling total representing the most recent year. In addition, those records shall show compliance with VOC emission limitations listed in this permit for each synthetic minor limitation. These records, as well as purchase orders and invoices for all VOC containing materials, shall be made available for inspection upon request by any duly authorized representatives of the Division for Air Quality.

**5. Specific Reporting Requirements:**

The permittee shall submit quarterly reports to the Cabinet of exceedances of the VOC emission limits specified in this permit or when the thermal oxidizers temperatures drop as defined in Section B(4)(d) of Group Requirement of this permit. If no such exceedances occur during a particular quarter, a report stating this shall be submitted to the Cabinet semiannually. In addition, those reports shall show tons per month of VOC emissions and a 12 month rolling total for VOC emissions for each month in the reporting period.

**6. Specific Control Equipment Operating Conditions:**

The thermal oxidizers shall be operated in accordance with standard operating practices based on generally accepted procedures, taking into account manufacturer's recommendations.

See Section E for specific operating requirements.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**12 (12)** Pnuematic Paper Collection System including:

- (01) Cyclone Separator #1, Installed December 1969 and modified in March 1982
- (02) Cyclone Separator #2, Installed March 1978 and modified in March 1982
- (03) Cyclone Separator #3, Installed May 1975 and modified in March 1982
- (04) Cyclone Separator #4, Installed March 1989

**Control Equipment:** None

### **APPLICABLE REGULATIONS:**

Regulation 401 KAR 59:010, New Process Operations. The provisions of this regulation shall apply to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulate in this chapter, commenced on or after July 2, 1975.

**1. Operating Limitations:** None

**2. Emission Limitations:**

For each Cyclone:

- A. 401 KAR 59:010 §3 The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.
- B. 401 KAR 59:010 §3 For emissions from a control device or stack the permittee shall not cause, suffer, allow, or permit the emission into the open air of particulate matter from any affected facility which in excess of the allowable, which is calculated as  $E = 3.59 \times P^{0.62}$ , where E is the allowable emissions rate in lbs per hour and P is the paper processing rate in tons per hour.

### **Compliance Demonstration Method:**

The calculated average hourly particulate emissions and paper usage rates shall be monitored on a monthly basis to ensure compliance with the emission limits listed above.

The following formula or equivalent maybe be used in calculating the particulate emissions from each cyclone:

Average Particulate Emission = (lbs/hr)	paper usage rate (tons per month) x particulate emission factor (lbs per ton of paper / hours of operation (hours per month)).
--	--

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****2. Emission Limitations ( Continued ):**

The emission factor shall be one (1) lb per ton of paper processed . This emission factor shall be replaced by the number calculated whenever an emission test or other modification, approved by the Division, is carried out for this emission point. Records of any such change in emission factor used shall be maintained at the source.

**3. Testing Requirements: None****4. Specific Monitoring Requirements:**

A qualitative observation of the visible emissions from this emission point shall be performed daily, when the unit is in operation. The observer shall determine if the emission point had normal visible emissions. A Method 9 reading by a certified visible emissions observer shall also be performed once a calendar quarter, simultaneous with the qualitative observation, to quantify the visible emissions. In addition, on any day that the qualitative reading shows visible emissions to be above normal, a Method 9 reading shall be performed.

**5. Specific Recordkeeping Requirements:**

Records shall be maintained of all opacity measurements including date, time, . Records of the calculated particulate emission rates, the paper usage rate, and the hours of operation shall be maintained at the source.

**6. Specific Reporting Requirements:**

The permittee shall submit quarterly reports to the Cabinet of exceedances of the allowable particulate emissions rate or visible emissions standard specified in this permit. If no such exceedances occur during a particular quarter, a report stating this shall be submitted to the Cabinet semiannually. In addition, the owner or operator shall certify, annually, whether the opacity measurements were conducted continuously or intermittently, and if intermittent, the frequency of such measurements.

**7. Specific Control Equipment Operating Conditions: None****8. Alternate Operating Scenarios: None**

**SECTION C - INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 50:035, Section 5(4). While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	<u>Description</u>	<u>Generally Applicable Regulation</u>
1.	2 UV Coaters	NA
2.	2 Propane Storage Tanks	NA
3.	6 Hot Melt Glue Pots	NA
4.	14 Parts Washers	401 KAR 59:185 Sec 8(2)
5.	2 Roller Washers	401 KAR 59:185 Sec 8(2)
6.	2 Emergency Electrical Generators	NA
7.	9 Ink Jet Printers	NA
8.	10 Vacuum Pumps	401 KAR 59:010
9.	Preliminary Operations, including plate processor and plate maker	401 KAR 59:010
10.	6 Dust Collectors	401 KAR 59:010
11.	Fire Pump Diesel Engine	NA
12.	Waste Water Anerobic Tank	NA
13.	Waste Water Pretreatment System	NA
14.	Fuel Oil Storage Tank	NA
15.	Blanket Wash Storage Tank	NA
16.	Waste Water Neutralization Tank	NA
17.	2 Waste Water Surge Tanks	NA
18.	6 Cooling Towers	401 KAR 63:010
19.	2 Dock Heaters	401 KAR 59:010

**SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)**

	<u>Description</u>	<u>Generally Applicable Regulation</u>
20.	Gasoline Storage Tank	NA
21.	3 Diesel Storage Tanks	NA
22.	Natural Gas Hot Water Boiler 2.0 MM Btu/hr	401KAR 59:015
23.	Propane Vaporizer 1.3 MM Btu/hr	401KAR 59:015
24.	Recovered oil tank (North Tank) 15,000 Gallon	NA
25.	Recovered oil tank (South Tank) 15,000 Gallon	NA

## **SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS**

1. The overall destruction efficiency of the thermal oxidizers shall be tested using Reference Method 25A specified in Regulation 401 KAR 50:015, Documents incorporated by reference or other method approved in the Compliance Test Protocol.
2. If the permittee can demonstrate to the division's satisfaction that testing of representative stacks yields results comparable to those that would be obtained by testing all stacks, the division will approve testing of representative stacks on case-by-case basis.
3. Compliance with annual emissions imposed pursuant to 401 KAR 50:035, Permits, Section 7(1)(a), and contained in this permit, shall be based on emissions for any twelve (12) consecutive months.
4. Compliance with processing limitations imposed pursuant to 401 KAR 50:035, Permits, Section 7(1)(a), and contained in this permit, shall be demonstrated monthly by dividing ink usage rate, fountain solution rate in pounds per month or gallons per month by the hours of operation per month.

## **SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS**

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.



## **SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS**

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
  - a. Date, place as defined in this permit, and time of sampling or measurements.
  - b. Analyses performance dates;
  - c. Company or entity that performed analyses;
  - d. Analytical techniques or methods used;
  - e. Analyses results; and
  - f. Operating conditions during time of sampling or measurement;
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [401 KAR 50:035, Permits, Section 7(1)(d)2 and 401 KAR 50:035, Permits, Section 7(2)(c)]
3. In accordance with the requirements of Regulation 401 KAR 50:035, Permits, Section 7(2)(c) the permittee shall allow the Cabinet or authorized representatives to perform the following:
  - a. Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are kept;
  - b. Have access to and copy, at reasonable times, any records required by the permit:
    - i. During normal office hours, and
    - ii. During periods of emergency when prompt access to records is essential to proper assessment by the Cabinet;
  - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
    - i. During all hours of operation at the source,
    - ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
    - iii. During an emergency; and
  - d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
    - i. During all hours of operation at the source,
    - ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
    - iii. During an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

## **SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

5. Reports of any monitoring required by this permit, shall be reported to the division's Bowling Green Regional Office no later than the six-month anniversary date of this permit and every six months thereafter during the life of this permit, unless otherwise stated in this permit. The permittee may shift to semi-annual reporting on a calendar year basis upon approval of the regional office. If calendar year reporting is approved, the semi-annual reports are due January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to Section 6(1) of Regulation 401 KAR 50:035, Permits. All deviations from permit requirements shall be clearly identified in the reports.
6.
  - a. In accordance with the provisions of Regulation 401 KAR 50:055, Section 1 the owner or operator shall notify the Division for Air Quality's Bowling Green Regional Office concerning startups, shutdowns, or malfunctions as follows:
    1. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
    2. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
  - b. In accordance with the provisions of Regulation 401 KAR 50:035, Section 7(1)(e)2, the owner or operator shall promptly report deviations from permit requirements including those attributed to upset conditions (other than emission exceedances covered by general condition 6 a. above) to the Division for Air Quality's Bowling Green Regional Office. Promptly shall mean 3 days for emissions exceedance deviations, not referred to in 6a above. For all other deviations promptly shall mean semiannually.

## **SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

7. Pursuant to Regulation 401 KAR 50:035, Permits, Section 7(2)(b), the permittee shall certify compliance with the terms and conditions contained in this permit, annually on the permit issuance anniversary date by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Division for Air Quality's Bowling Green Regional Office and the U.S. EPA in accordance with the following requirements:
- a. Identification of each term or condition of the permit that is the basis of the certification;
  - b. The compliance status regarding each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent; and
  - d. The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to 401 KAR 50:035, Section 7(1)(c),(d), and (e).
  - e. The certification shall be postmarked by the thirtieth (30) day following the applicable permit issuance anniversary date, or by January 30th of each year if calendar year reporting is approved by the regional office. **Annual compliance certifications should be mailed to the following addresses:**

**Division for Air Quality  
Bowling Green Regional Office  
1508 Western Avenue  
Bowling Green, KY 42104**

**U.S. EPA Region IV  
Air Enforcement Branch  
Atlanta Federal Center  
61 Forsyth St.  
Atlanta, GA 30303-8960**

**Division for Air Quality  
Central Files  
803 Schenkel Lane  
Frankfort, KY 40601**

8. In accordance with Regulation 401 KAR 50:035, Section 23, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission report is mailed to the permittee.
9. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.

## SECTION G - GENERAL CONDITIONS

### (a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be (a) violation(s) of state regulation 401 KAR 50:035, Permits, Section 7(3)(d) and for federally enforceable permits is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition.
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401 KAR 50:035, Section 12(2)(c);
  - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
  - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish to the division, in writing, information that the division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. [401 KAR 50:035, Permits, Section 7(2)(b)3e and 401 KAR 50:035, Permits, Section 7(3)(j)]
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority.

**SECTION G - GENERAL CONDITIONS (CONTINUED)**

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [401 KAR 50:035, Permits, Section 7(3)(k)]
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [401 KAR 50:035, Permits, Section 7(3)(e)]
8. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States.
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [401 KAR 50:035, Permits, Section 7(3)(h)]
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 50:035, Permits, Section 8(3)(b)]
11. This permit shall not convey property rights or exclusive privileges. [401 KAR 50:035, Permits, Section 7 (3)(g)]
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 50:035, Permits, Section 7(2)(b)5]
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 50:035, Permits, Section 8(3)(a)]
15. Permit Shield: Except as provided in State Regulation 401 KAR 50:035, Permits, compliance by the affected facilities listed herein with the conditions of this permit shall be deemed to be compliance with all applicable requirements identified in this permit as of the date of issuance of this permit.
16. All previously issued construction and operating permits are hereby null and void.

## **SECTION G - GENERAL CONDITIONS (CONTINUED)**

### **(b) Permit Expiration and Reapplication Requirements**

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the division. [401 KAR 50:035, Permits, Section 12].

### **(c) Permit Revisions**

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of Regulation 401 KAR 50:035, Section 15.
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority thirty (30) days in advance of the transfer.

### **(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements : None**

### **(e) Acid Rain Program Requirements**

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

## **SECTION G - GENERAL CONDITIONS (CONTINUED)**

### **(f) Emergency Provisions**

1. An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
  - a. An emergency occurred and the permittee can identify the cause of the emergency;
  - b. The permitted facility was at the time being properly operated;
  - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
  - d. The permittee notified the division as promptly as possible and submitted written notice of the emergency to the division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall meet the requirements of 401 KAR 50:035, Permits, Section 7(1)(e)2, and include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken. This requirement does not relieve the source of any other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement.
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 50:035, Permits, Section 9(3)]

### **(g) Risk Management Provisions**

1. The permittee shall comply with all applicable requirements of 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:  
RMP Reporting Center  
P.O. Box 3346  
Merrifield, VA, 22116-3346
2. If requested, submit additional relevant information by the division or the U.S. EPA.

## **SECTION G - GENERAL CONDITIONS (CONTINUED)**

### **(h) Ozone depleting substances**

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
  - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

## **SECTION H - ALTERNATE OPERATING SCENARIOS**

None

## **SECTION I - COMPLIANCE SCHEDULE**

None